REMARKS

This Amendment is responsive to the Office Action mailed on April 5, 2006.

Claims 1-24 and 26-35 are pending. In the present Amendment, claims 1, 2, 5-10, 15, 19, 26, and 28-32 have been amended and claim 25 has been cancelled.

All of the claims were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The amendments to the claims are believed to overcome this rejection, and the Examiner is respectfully requested to withdraw the rejection in view of the present amendments.

Claims 1-4, 13, 14, 20-24, 27 and 33-35 have been rejected under 35 U.S.C. §102(b), as being anticipated by Kitagawa et al. U.S. Patent 5,055,923. This rejection is traversed in the comments set forth below.

Claims 25, 26 and 28-31 have been rejected under 35 U.S.C. §103(a) as being obvious over Kitagawa et al. in further view of Japanese Document 10-335128 to Suzuki. This rejection is also traversed as set forth below.

The subject matter of claims 5-12, 15-19 and 32 has been found to be allowable. In the present Amendment, claims 5, 15, 19 and 32 have been rewritten in independent form, including the limitations of the base claim and any intervening claims. Accordingly, each of these claims, and each of the claims dependent thereon, is believed to be in immediate condition for allowance. Allowance of claims 5-12, 15-19 and 32 is therefore respectfully requested.

Amended claim 1 clarifies that the reproduction method comprises two steps, i.e.:

(i) defining a modified characteristic curve of printing, and

(ii) transforming the original data into the data required for printing using the modified characteristic curve.

In order to print original data which are, for example, RGB data, the data have to be transformed into a format required for printing, e.g., CMYK data. During the printing itself, a specific problem occurs in that mechanical influences cause ink dots to be squeezed. For example, in offset printing during transfer from an offset plate to a rubber blanket and again during transfer from the rubber blanket to paper, ink dots are squeezed. A printed screen dot is then enlarged during the printing operation and has therefore a larger dot area than was actually provided for by the transformation from the original to the data required for printing. Such "dot gain" is an undesired and annoying (but unavoidable) effect which may affect the color reproduction in the print. The effect of dot gain may result in color distortions in the print in comparison with the original.

The effect of dot gain is indicated by a so-called characteristic curve of printing (printing characteristics) in which the area coverage in the print is shown with respect to the area coverage in an original with a colored application, e.g., a film or a plate. Without dot gain, the characteristic curve of printing would be a straight line which represents a line bisecting the angle between the ordinate and abscissa.

The actual printing characteristics differ from printing machine to printing machine and are dependent upon the quality of the ink used and also upon the type of paper on which the printing is done. The determination of the printing characteristics in each case involves considerable expenditure.

The present invention overcomes the disadvantages of the prior art by basing the transformation not on an *actual* characteristic curve of printing but on a *modified* characteristic curve of printing which is a theoretical (or hypothetical) curve. The modified characteristic curve is determined in such a way that it has a maximum above an area coverage of 50%. Due to the fact that in modern reproduction processes screen dots do not have a square cross section but are substantially circular, there is no total area coverage. The maximum should lie in a range where neighboring screen dots start to overlap. This is the case when an area coverage of more than 50% is reached.

With the reproduction method of the present invention, experimental printing characteristics do not have to be determined.
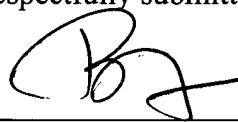
Turning now to the specific rejections set forth by the Examiner, claim 1 stands rejected under 35 U.S.C. 102(b) as being anticipated by US 5,055,923 (Kitagawa et al.). Applicant respectfully disagrees with this rejection, as Kitagawa et al. does not disclose the idea of using a modified characteristic curve, as claimed, instead of an actual characteristic curve of printing.

In Figures 11A to C (explained in col. 3, lines 40 - 44), Kitagawa et al. shows characteristic curves of dot gain which are experimental curves. Kitagawa et al. does not disclose or remotely suggest the use of a modified characteristic curve of printing which in relation to an ideal characteristic curve of printing has a maximum above an area coverage of 50% for the transformation of the original data into data required for printing. Since Kitagawa et al. fails to disclose this fundamental aspect of Applicant's claim 1, and Suzuki fails to remedy this deficiency of Kitagawa et al., it is respectfully submitted that claim 1 and each of the claims dependent thereon clearly patentably distinguishes over Kitagawa et al. taken alone, or the combination of Kitagawa et al. and Suzuki.

Further remarks regarding the asserted relationship between Applicants' claims and the prior art are not deemed necessary, in view of the amended claims and the foregoing discussion. Applicants' silence as to any of the Examiner's comments is not indicative of acquiescence to the stated grounds of rejection.

In view of the above, the Examiner is respectfully requested to reconsider this application, allow each of the pending claims and to pass this application on to an early issue. If there are any remaining issues that need to be addressed in order to place this application into condition for allowance, the Examiner is requested to telephone Applicants' undersigned attorney.

Respectfully submitted,

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